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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,429	06/26/2001	Ahmed Nabil Charkani	FR 000071	3770
24737	7590	10/29/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/891,429

Applicant(s)

AHMED NABIL CHARKIANI

Examiner

Edith M Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6262001, 1272001</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The document WO 9813941 listed in the IDS filed on December 10, 2001 is duplicated with the one listed in the IDS filed on June 26, 2001, hence it is deleted from the IDS filed on December 10, 2001.

### ***Specification***

2. The abstract of the disclosure is objected to because the term "Fig. 1" should be deleted. Correction is required. See MPEP § 608.01(b).
3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.

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- (1) Field of the Invention.
- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Add the section headings in the written specification.

4. The disclosure is objected to because of the following informalities: in page 10 line 1, "CLAIMS" should be changed to "I (or we claim)", "The invention claimed is" (or the equivalent), refer to MPEP 608.019(m).

#### ***Claim Objections***

5. Claim 7 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim 7 has not been further treated on the merits.
6. Claims 1-6 and 8-9 are objected to because of the following informalities:
- Claim 1, line 3: "the received signal" is suggested changing to "the received digital signal"; and line 6: "received frame" " is suggested changing to "received data frame".
- Claim 3, line 1: "detection device" " is suggested changing to "detector".
- Claim 4, line 4: "the relevant sub-band" " is suggested changing to "the sub-band".

Claim 6, line 3: "received signal" " is suggested changing to "received digital signal";  
and line 4: "the signal" " is suggested changing to "the received digital signal"; and line 6:  
"received frame" " is suggested changing to "received data frame".

Claims 2, 5, and 8-9 are directly depend on objected claim 1.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, line 2: "said magnitude" lacks antecedent basis.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hindelang et al. (US 6,233,708 B1) in view of Yeap et al. (US 6,456,657 B1).

Regarding **claims 1 & 6**, in Fig.1 and column 4 lines 15-40, Hindelang et al. discloses a

frame error detection device and its method in a receiver (column 2 lines 45-65). The elements EE and DE estimate and detect the energy of the received frame to produce an indication  $F_E$  compared with threshold a value, and this indication/value input to the element LC in term output a bad frame indication BFI to declare the frame to be good or bad, wherein the indication  $F_E$  is the saturation indication from the saturation detector (elements FE and DE) and BFI is the bad-frame indication from the bad-frame detector (element LC).

However Hindelang et al. does not explicitly specify the filter for filtering the received signal in at least one frequency sub-band.

Yeap et al. teaches a receiver with a filter array to bandpass sub-channel of the received signal in FIG.3 wherein the element 31 is the filter block. As Hindelang et al.'s receiver receiving wireless signal (GSM), at the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the demodulator with the filtering block taught by Yeap et al. in the Hindelang et al.'s receiver to provide demodulated signal to the channel decoding element CD for the purpose of demodulating multicarrier signal and reducing the risk of corruption of the received signals (column 3 lines 15-20).

Regarding **claim 5**, Hindelang et al. teaches the magnitude of the received signal being representative of the energy in equation 2, column 5 lines 30-40.

Regarding **claims 8 & 9**, Hindelang et al.'s frame detector is used in the receiver for GSM signal, hence the Hindelang et al.'s receiver is used in the GSM system which comprises at least one base station and a mobile station.

***Allowable Subject Matter***

11. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest, alone or in a combination, among other things, at least a receiver and it method for receiving a digital signal comprising data frames in a given frequency band as a whole, the combination of elements and features as claimed, which includes the probability of the magnitude of the received digital signal exceeding a fixed threshold to evolve within a tolerance interval wherein the evolved frames comprising at least one value of a preceding good frame being in the tolerance interval.

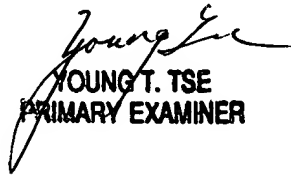
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
October 22, 2004

  
YOUNG T. TSE  
PRIMARY EXAMINER